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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/268,194	03/15/1999	HIROSHI YAMADA	58803-CCD	8059

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EXAMINER

CROSS, LATOYA I

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 12/13/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/268,194

Applicant(s)
Yamada et al

Examiner
LaToya Cross

Group Art Unit
1743



☒ Responsive to communication(s) filed on Mar 15, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-37 is/are pending in the application

Of the above, claim(s) 17-37 is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-5 and 9-12 is/are rejected.

☒ Claim(s) 6-8 and 13-16 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a temperature history displaying medium, classified in class 422, subclass 50.
 - II. Claims 17-28, drawn to a temperature displaying method, classified in class 374, subclass 160.
 - III. Claims 29-37, drawn to a method of manufacturing, classified in class 374, subclass 106.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the medium can be used in a materially different method such as in determining the integrity of perishable goods.
3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be

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made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different method such as by known laminating processes.

4. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are directed to two different methods which have different modes of operation and different effects.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Groups II and III is not required for Group I, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with C. Dunham, a provisional election was made with traverse to prosecute the invention of group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any

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amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Specification

9. The disclosure is objected to because of the following informalities: at page 42, lines 1-3, the sentence beginning "In addition" is incomplete. The specification has not been fully checked for additional grammatical and spelling errors. Applicants should thoroughly review the specification for such errors and make amendments where necessary.

Claim Objections

10. Claims 6-8 and 13-16 are objected to under 37 CFR 1.75© as being in improper form because a multiple dependent claim cannot depend upon another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 6-8 and 13-16 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by the abstract of Japanese publication 9-95633 to Yoshimura (hereinafter Yoshimura '633).

Applicants' invention is directed to a temperature history displaying medium comprising a color-forming component which comprises an electron donating compound and an electron accepting compound and a color erasing agent.

Yoshimura '633 teaches an ink composition capable of displaying heat history. The composition comprises an electron donating compound, an electron accepting compound, a resin and solvent. According to the abstract, the solvent includes ether alcohols. According to Applicants' specification at page 32, ether alcohols may be used as color erasing compounds.

It is noted that the abstract of Yoshimura '633 does not state how the discoloring is triggered. However, Applicants' claims are directed to a medium composition and since the composition of Yoshimura '633 comprises the same components as the claims, the claimed properties and functions are presumed to be inherent. See MPEP 2112.01. In the instant case, Yoshimura '633 teaches that a change in color begins at a predetermined temperature, presumably a temperature higher than normal. It is submitted that the ether alcohols, being color erasing agents, would function in the same manner as Applicants' when exposed to higher temperatures.

Therefore, for the reasons set forth above, Applicants' claimed invention is deemed to be anticipated within the meaning of 35 USC 102 (a) in view of the teachings of Yoshimura '633.

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13. Claims 1-5, 9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,729,671 to Asano et al (hereinafter Asano et al '671).

Asano et al '671 teach a temperature control indicator used in determining the specific temperatures at which articles have been maintained. The indicator of Asano et al '671 comprises a substrate having supported thereon microcapsules enclosing a hydrophobic organic compound, a methine dye, and an oxidizing agent. The microencapsulated hydrophobic organic compounds are disclosed as phthalic acid esters such as dimethyl phthalate and dioctyl phthalate (col. 6, lines 27-44). Phthalic acid esters are stated to be color erasing agents having supercooling properties by Applicants at page 32 of the instant specification. The methine dye is an electron donating compound and the oxidizing compound is an electron accepting compound. With respect to the layered components of claims 4, 5, 9 and 11, Asano et al '671 teach layered structures wherein layer 1 represents a color developing layer; layer 2 represents a substrate; layer 3 represents a microcapsule layer containing the microencapsulated hydrophobic compound; layer 4 represents an adhesive layer; layer 5 represents a sheet of release paper; layer 6 represents a protective layer; and layer 7 represents a spacer layer. According to figure 4, there exists a spacer layer 7 between the color developing layer 1 and the microencapsulated hydrophobic layer 6. Also, an adhesive layer 4 is formed on the opposite side of the substrate as the color developing layer 1. Asano et al '671 also teach at col. 5, lines 65-68 that the microencapsulated hydrophobic compound may also include the methine dye or oxidizing agent.

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Therefore, for the reasons set forth above, Applicants' claimed invention is deemed to be anticipated within the meaning of 35 USC 102 (b) in view of the teachings of Asano et al '671.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asano et al '671.

With respect to claim 10, Asano et al '671 do not teach the presence of a backcoat layer formed between the adhesive layer and the substrate.

However, it is known in the art of layered structures to incorporate additional "inert" layers between the "active" layers for the purpose of making the layered structure more or less sensitive. Applicants have not given a purpose or function of the backcoat layer in the claimed temperature displaying medium. It is the position of the Examiner that the addition of extra layers would be obvious to the skilled artisan.

Therefore, for the reasons set forth above, Applicants' claimed invention is deemed to be obvious, within the meaning of 35 USC 103 in view the teachings of Asano et al '671.

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Citation of Relevant Prior Art


16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaToya I. Cross whose telephone number is (703) 305-7360. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached at (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

LIC 810
February 9, 2001


Jill Warden
Supervisory Patent Examiner
Technology Center 1700